

**Abstract**

An apparatus and method for informing a coordinator of the particular characteristics of a periodic traffic source are disclosed. A station that generates a periodic traffic stream encodes the temporal period and temporal offset of the traffic stream within a quality-of-service (QoS) traffic specification, and transmits the traffic specification with a poll request. The coordinator, upon receiving a polling request, processes the associated traffic specification and, via appropriate decoding logic, determines whether the requesting station generates periodic traffic, and if so, the temporal period and temporal offset of the traffic stream. The coordinator subsequently can establish, based on the temporal period and temporal offset, a polling schedule that minimizes the delay between (i) the station generating a frame, and (ii) the station transmitting the frame (and thus the destination receiving the frame).